PATENTS

N THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:) Conf. No.:	1668
Strom et al.) Art Unit:	1653
Serial No.: 10/785,210)) Examiner:	Mayer
Filed: February 24, 2004	ý	·
For: Periodic Antimicrobial Pen) Docket No.	: 00588.105030

REPLACEMENT OF SEQUENCE LISTING FILED UNDER 37 CFR § 1.825

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicants respectfully request that the paper copy of the sequence listing previously filed in the referenced application be replaced with the substitute sheets filed herewith. I hereby state that the substitute paper copy includes no new matter.

Applicants also submit a substitute copy of the sequence listing in computer readable form. The substitute computer readable copy is identical to the substitute paper copy. I hereby state that the substitute computer readable copy includes no new matter. The computer readable copy of the sequence listing is named "Sequence Listing" and is on the enclosed 1.44 MB IBM diskette.

Support for the now included sequence numbers 57 and 58 can be found on page 8 of the specification.

No fees are believed to be due in connection with this submission. However, should the Commissioner determine otherwise, he is authorized to charge such fees to Deposit Account No. 11-0980.

Respectfully submitted,

Brent/R Bellows Ph D

Reg. No. 54,709

Date: April 20, 2005

KING & SPALDING LLP 191 Peachtree Street 45th Floor Atlanta, GA 30303-1763 Tel.: (404) 572-4600



Periodic Antimicrobial Peptides.ST25.txt SEQUENCE LISTING

```
<110>
                                  The Dow Chemical Company
                                   Strom, Robert M.
                                   Brodsema, Philip J.
     <120>
                                  Periodic Antimicrobial Peptides
     <130>
                                  62424a
     <140>
                                   10/785,210
     <141>
                                  2004-02-24
<160>
                                   58
     <170>
                                 PatentIn version 3.2
     <210>
     <211>
                               16
     <212>
                                PRT
      <213>
                                 Artificial
     <220>
                                  Periodic Peptide
     <223>
     <400>
     Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys
     <210>
<211>
                                  20
     <212>
                                 PRT
                                 artificial
     <213>
     <220>
     <223> Periodic Peptide
     <400>
     Lys Phe Ala Lys
     <210>
     <211>
                                 24
      <212>
                                PRT
                                 artificial
      <213>
     <220>
                                 Periodic Peptide
     <223>
     <400> 3
     Lys Phe Ala Lys Lys Phe Phe Ala Lys Ph
```

```
Periodic Antimicrobial Peptides.ST25.txt
Lys Phe Ala Lys Lys Phe Ala Lys
20
<210>
<211>
<212>
      28
      PRT
<213>
      artificial
<220>
      Periodic Peptide
<223>
<400>
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 1 5 10 15
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 20 25
      5
32
<210>
<211>
<212>
      PRT
      artificial
<213>
<220>
      Periodic Peptides
<223>
<400> 5
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 1 5 10 15
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 20 25 30
<210>
       6
       48
<211>
<212>
      PRT
<213>
      artificial
<220>
       Periodic Peptide
<223>
<400>
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 10 15
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 20 Phe Ala Lys 30
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 45
```

<210> 7

```
Periodic Antimicrobial Peptides.ST25.txt
<211>
       68
<212>
       artificial
<220>
       Periodic Peptide
<223>
<400>
       7
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 1 5 10 15
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 20 25 30
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Ala Lys 35 40 45
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 50 55 60
Lys Phe Ala Lys
65
<210>
<211>
       84
<212>
       PRT
       artificial
<220>
       periodic peptide
<223>
<400>
```

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 1 15

Lys Phe Ala Lys Lys Phe Ala Lys Phe Ala Lys Lys Phe Ala Lys 20 25 30

Lys Phe Ala Lys Lys Phe Ala Lys Phe Ala Lys Bhe Ala Lys 35 40 45

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 50 55 60

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 65 70 75 80

Lys Phe Ala Lys

```
Periodic Antimicrobial Peptides.ST25.txt
<210>
<211> 24
<212> PRT
      artificial
<220>
<223>
      Periodic Peptide
<400>
Arg Phe Ala Arg Arg Phe Ala Arg Phe Ala Arg 1 5 10 15
Arg Phe Ala Arg Arg Phe Ala Arg
20
<210>
       10
<211> 28
<212> PRT
<213> artificial
<220>
<223>
       Periodic Peptide
<400>
       10
Arg Phe Ala Arg Arg Phe Ala Arg Phe Ala Arg 1 5 10 15
Arg Phe Ala Arg Arg Phe Ala Arg 20 Phe Ala Arg 25
<210> 11
<211> 32
<212> PRT
<213> artificial
<220>
       Periodic Peptide
<223>
<400>
Arg Phe Ala Arg Arg Phe Ala Arg Phe Ala Arg Arg Phe Ala Arg
Arg Phe Ala Arg Arg Phe Ala Arg Phe Ala Arg Phe Ala Arg 20 25 30
<210> 12
<211> 24
<212> PRT
<213> artificial
<220>
<223>
       Periodic Peptide
<400>
       12
```

Page 4

```
Periodic Antimicrobial Peptides.ST25.txt
Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys 10 15
Phe Ala Lys Lys Phe Ala Lys Lys 20
<210>
       13
<211>
       24
<212> PRT
<213>
       artificial
<220>
<223>
       Periodic Peptide
<400> 13
Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe 10 15
Ala Lys Lys Phe Ala Lys Lys Phe 20
<211> 24
<212> PRT
       artificial
<220>
<223>
       periodic peptide
<400>
Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala 1 10 15
Lys Lys Phe Ala Lys Lys Phe Ala 20
<210> 15
<211> 20
<212> PRT
       artificial
<213>
<220>
       periodic peptide
<223>
<400> 15
Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu 10 15
```

Leu Lys Lys Leu 20

```
Periodic Antimicrobial Peptides.ST25.txt
<210> 16
<211> 24
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 16
Leu Lys Lys Leu Leu Lys Lys Leu
20
<210>
     17
<211> 28
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 17
Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu 20 25
<210> 18
<211> 32
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 18
Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu 20 25 30
<210>
     19
<211>
     28
<212> PRT
     artificial
<213>
<220>
<223> periodic peptide
<400>
     19
```

Page 6

```
Periodic Antimicrobial Peptides.ST25.txt
Lys Phe Ala Phe Lys Phe Ala Phe Lys Phe Ala Phe 1 5 10 15
Lys Phe Ala Phe Lys Phe Ala Phe Lys Phe Ala Phe 20 25
<210>
       20
       28
<211>
<212>
      PRT
<213>
       artificial
<220>
<223>
       periodic peptide
<400>
Lys Phe Phe Lys Lys Phe Phe Lys Lys Phe Phe Lys Lys Phe Phe Lys 1
Lys Phe Phe Lys Lys Phe Phe Lys Phe Phe Lys 20 25
<210>
<211>
      28
<212>
      PRT
       artificial
<213>
<220>
<223>
       periodic peptide
<400>
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 10 15
Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys 20 25
       22
<210>
<211>
      28
<212>
      PRT
       artificial
<213>
<220>
       periodic peptide
<223>
<400>
       22
```

Lys Ala Ala Lys Lys Ala Ala Lys Lys Ala Ala Lys 20 25

Lys Ala Ala Lys Lys Ala Ala Lys Lys Ala Ala Lys 1 5 10 15

```
Periodic Antimicrobial Peptides.ST25.txt
<210>
       23
<211> 28
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 23
Lys Lys Ala Lys Lys Ala Lys Lys Ala Lys Lys Ala Lys 10 \phantom{000} 15
Lys Lys Ala Lys Lys Ala Lys Lys Ala Lys
<210> 24
<211> 15
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 24
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys 10 15
<210>
       25
<211> 18
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 25
Lys Phe Lys Lys 10 15
Phe Lys
<210>
       26
<211>
       21
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400>
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys 1 10 15
```

```
Phe Lys Lys Phe Lys 20
       27
24
<210>
<211>
<212> PRT
       artificial
<213>
<220>
<223>
      periodic peptide
<400> 27
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys 1 10 . 15
Phe Lys Lys Phe Lys Lys Phe Lys
<210> 28
<211> 27
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400>
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys 10 15
Phe Lys Lys Phe Lys Lys Phe Lys 20 25
<210>
<211>
       29
       30
<212>
       PRT
       artificial
<213>
<220>
<223>
       periodic peptide
<400>
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys 1 10 15
Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys 20 25 30
<210>
       30
<211>
       36
<212> PRT
<213> artificial
```

```
<220>
       periodic peptide
<400>
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys 1 10 15
Phe Lys Lys Phe 20 25 30
Lys Lys Phe Lys 35
<210>
<211>
       48
<212>
       PRT
       artificial
<220>
<223> periodic peptide
<400> 31
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 10 15
Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe 20 Phe Lys Lys Phe 30
Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys A5 40 45
<210>
       32
<211>
       63
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 32
Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys 10 Phe Lys Lys 15
Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe 20 25 30
Lys Lys Phe Lys 35 40 45
Lys Phe Lys Lys Phe Lys Lys Phe Lys Phe Lys Phe Lys
```

```
50
<210> 33
<211> 6
<212> PRT
<213> artificial
<220>
<223>
        periodic peptide
<400> 33
Phe Lys Ala Phe Lys Ala
1 5
<210> 34
<211> 12
<212> PRT
<213> artificial
<220>
<223>
        periodic peptide
<400>
        34
Phe Lys Ala Phe Lys Ala Phe Lys Ala 10
<210> 35
<211> 18
<212> PR
        PRT
<213>
       artificial
<220>
<223> periodic peptide
<400>
Phe Lys Ala Phe 15 10 15
Lys Ala
<210> 36
<211> 21
<212> PRT
<213> artificial
<220>
<223>
       periodic peptide
<400>
        36
Phe Lys Ala Phe 15 15
```

```
Periodic Antimicrobial Peptides.ST25.txt
Lys Ala Phe Lys Ala
20
<210>
       37
<211>
       24
<212>
<213>
       PRT
       artificial
<220>
<223>
       periodic peptide
<400>
       37
Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe 15 10 15
Lys Ala Phe Lys Ala Phe Lys Ala 20
       38
27
<210>
<211>
<212> PRT
<213>
       artificial
<220>
<223>
       periodic peptide
<400>
       38
Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe 1 5 10 15
Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala 20 25
<210>
       39
<211>
<212>
       30
       PRT
<213>
       artificial
<220>
<223>
       periodic peptide
<400>
Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe 15 10 15
Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala 20 25 30
<210>
       40
<211>
       51
<212> PRT
<213> artificial
```

```
Periodic Antimicrobial Peptides.ST25.txt
<220>
       periodic peptide
       40
<400>
Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe 1 5 10 15
Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys 20 25 30
Ala Phe Lys Ala 35 40 45
Phe Lys Ala
50
<210>
       41
<211>
       63
<212>
       PRT
       artificial
<213>
<220>
       periodic peptide
<223>
<400>
Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe 1 5 10 15
Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys 20 25 30
Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala 35 40 45
Phe Lys Ala 50 55 60
<210>
       42
<211>
       4
<212>
       PRT
<213>
       artificial
<220>
<223>
       periodic peptide
<400>
       42
Leu Lys Leu Lys
<210>
<211>
```

```
Periodic Antimicrobial Peptides.ST25.txt
<212> PRT
<213> artificial
<220>
<223>
       periodic peptide
<400> 43
Leu Lys Leu Lys Leu Lys Leu Lys 10
<210>
       44
<211> 16
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 44
Leu Lys 1 10 15
<210> 45
<211> 18
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 45
Leu Lys 10 \phantom{000} Leu Lys 15
Leu Lys
<210> 46
<211> 20
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 46
Leu Lys 10 15
Leu Lys Leu Lys
20
<210> 47
```

```
Periodic Antimicrobial Peptides.ST25.txt
<211> 22
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 47
Leu Lys 1 5 10 15
Leu Lys Leu Lys Leu Lys
20
<210> 48
<211> 24
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 48
Leu Lys 10 15
Leu Lys Leu Lys Leu Lys 20
<210> 49
<211> 36
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 49
Leu Lys 10 15
Leu Lys 20 25 30
Leu Lys Leu Lys
35
<210>
       50
<211>
       48
<212> PRT
<213>
      artificial
<220>
```

```
Periodic Antimicrobial Peptides.ST25.txt
<223>
      periodic peptide
<400> 50
Leu Lys 10 15
Leu Lys 20 25 30
Leu Lys 35 40 45
<210>
      51
<211> 14
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 51
Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg 1 5 10
<210> 52
<211> 18
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 52
Leu Arg
<210> 53
<211> 22
<212> PRT
<213> artificial
<220>
<223> periodic peptide
<400> 53
Leu Arg 1 10 15
Leu Arg Leu Arg Leu Arg
```

Page 16

```
<210>
      54
<211>
      33
<212>
      PRT
      artificial
<220>
<223>
      periodic peptide
<400> 54
Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys 10 15
Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly 20 25 30
Lys
       55
<210>
<211>
<212> PRT
<213>
      artificial
<220>
      periodic peptide
<223>
<400> 55
Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys 10 15
Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly 20 25 30
Lys Lys Gly Lys Lys Gly Lys Gly Lys Gly Lys Gly Lys 45
<210>
<211>
<212>
       56
       21
      PRT
      artificial
<220>
<223>
      periodic peptide
<400> 56
Lys Thr Lys Lys Thr Lys Lys Thr Lys Lys Thr Lys Lys 1 10 15
Thr Lys Lys Thr Lys
```

Leu